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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/648,896	08/27/2003	Volker Block	304-813	5101
30448	7590	12/03/2004	EXAMINER	
AKERMAN SENTERFITT P.O. BOX 3188 WEST PALM BEACH, FL 33402-3188			GONZALEZ, MADELINE	
			ART UNIT	PAPER NUMBER
			2859	

DATE MAILED: 12/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/648,896

Applicant(s)

BLOCK ET AL.

Examiner

Madeline Gonzalez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 and 14-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 14-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

In response to applicant's amendment dated October 14, 2004

Claim Objections

1. Claim 18 is objected to because of the following informalities:
 - a) Claim 18: The claim recites the limitation "said heating element" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

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the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-11, 14-16 and 19-21 are finally rejected under 35 U.S.C. 103(a) as being unpatentable over Camburn (U.S. 6,390,673) in view of Lenz et al. (U.S. 4,747,700) [hereinafter Lenz].

Camburn discloses a device for determining the temperature of a flowable medium, as shown in Fig. 1, wherein said medium flows through a duct 10 with a cross-section, the device having:

- a temperature sensor 34;
- a probe body;
- wherein said probe body has several elongated probe sections 24;
- wherein said probe sections 24 extend into said duct 10;
- wherein said temperature sensor 34 is located outside said duct 10;
- wherein said temperature sensor 34 is in conductive contact with the probe section 24;
- wherein said probe sections 24 extend through said entire cross-section of said duct 10;
- wherein said probe sections 24 are straight and parallel;
- wherein said probe sections are equidistant to one another;

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- wherein said probe section 24 are rod-like;
- wherein said probe sections 24 are spaced from one another with free gaps, said free gaps between two adjacent of said probe sections 24 being roughly of the order of magnitude of the extension of said probe sections 24 at right angles to a flow direction of said medium;
- wherein there is a flow cross-section for said medium through said probe sections 24 and said probe sections have an end face in said duct 10, wherein said flow cross-section is roughly as large as the sum of said end faces of said probe sections 24 in said duct 10;
- wherein said probe sections 24 extend in said medium flow direction about the same as at right angles thereto;
- wherein said device is connected, in a broad sense, to a heater;
- wherein said heater has a heat transfer member 22 extending into said duct 10; and
- wherein said medium has a flow direction and said probe body is positioned downstream of said heater in said medium flow direction.

Camburn lacks a base member, and the temperature sensor arranged on the probe body.

With respect to the base member and the temperature sensor arranged on the probe body: Lenz discloses a thermocouple rake, as shown in Fig. 1, having a probe body 12 including several elongated probe sections 50 connected to a base member 18 and a temperature sensor 76 arranged on said probe body 12 in conductive thermal contact therewith, and the probe body 12

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and the probe sections are entirely made in one piece 10. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to add a base member as taught by Lenz to the device disclosed by Camburn in order to provide a better support for the probe sections 24 and facilitate their removal since, with a base, the sections 24 could be removed all at once. Furthermore, it would be obvious to add a temperature sensor on the probe body as taught by Lenz in order to measure an average temperature.

5. Claims 17 and 18 are finally rejected under 35 U.S.C. 103(a) as being unpatentable over Camburn (U.S. 6,390,673) in view of Lenz (U.S. 4,747,700) as applied to claims 1-11, 14-16 and 19-21 above, and further in view of Graves et al. (U.S. 5,342,498) [hereinafter Graves].

Camburn as modified by Lenz disclosed all the subject matter claimed above in paragraph 4 with the exception of a temperature sensor integrated into a heating element and the heating element being a thick film heating element.

With respect to the temperature sensor integrated into a heating element and the heating element being a thick film heating element: Graves teaches the use of a thick film heater 74 having a temperature sensor 38, said heater 74 provides heat in response to a temperature sensed by the temperature sensor. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to add a thick film heater as taught by Graves to the device disclosed by Camburn as modified by Lenz and integrate the temperature sensor in

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order to provide heat in response to the temperature sensed by the temperature sensor and control the temperature of the medium.

Response to Arguments

6. Applicant's arguments with respect to claims 1-11 and 14-21 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Lyman, Bourgeon et al. ('065), Babcock et al. ('310) and Roepke et al. ('278) disclose temperature sensors having several probe sections.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Madeline Gonzalez whose telephone number is (571) 272-2243. The examiner can normally be reached on Monday-Friday (8:00-5:30), alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego F.F. Gutierrez can be reached on (571) 272-2245. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MG



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